Battelle Memorial Institute,
First Hot Isostatic Pressure Vessel
505 King Avenue
Columbus
Franklin County
Ohio

HAER No. OH-65-B

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE INFORMATION

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, DC 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

BATTELLE MEMORIAL INSTITUTE, FIRST HOT ISOSTATIC PROCESSING VESSELS
HAER No. OH-65-B

Location: 505 King Avenue, Columbus, Franklin County, Ohio

Date of Construction: 1958

Present Owner: Battelle Memorial Institute

Significance: Conceived by Batelle researchers in 1955, the hot isostatic pressure (HIP) vessel is now used worldwide to manufacture ceramic and advanced alloys and for fabricating complex-shaped parts such as jet engine turbines and cutting tools.

In this process, materials are placed in a vessel, where intense heat and gas pressure are applied simultaneously and on all sides. HIP can consolidate powders of metals, ceramics, or combinations of the two into complex shapes with little need for machining; bond together materials which normally cannot be welded; heal defective castings; rejuvenate worn parts; or pressure infiltrate liquids into porous solids.

The American Society of Mechanical Engineers (ASME) designated the HIP vessels an International Historic Mechanical Engineering Landmark on April 2, 1985.

Source: Press Release, "ASME Landmarks Battelle's HIP Vessel," April [1985], p. 1.

Historian: Robert Buerglener, September, 1988.